

Name: _____

at1110paper__practice__test (v9)

1. Solve the equation with factoring by grouping.

$$12x^2 + 18x - 10x - 15 = 0$$

$$(6x - 5)(2x + 3) = 0$$

$$x = \frac{5}{6} \quad x = \frac{-3}{2}$$

2. Factor the expression.

$$x^2 - 16x + 63$$

$$(x - 9)(x - 7)$$

3. Solve the equation.

$$(5x + 4)(9x - 2) = 0$$

$$x = \frac{-4}{5} \quad x = \frac{2}{9}$$

4. Expand the following expression into standard form.

$$(4x - 7)^2$$

$$16x^2 - 28x - 28x + 49$$

$$16x^2 - 56x + 49$$

5. Expand the following expression into standard form.

$$(6x + 7)(6x - 7)$$

$$36x^2 - 42x + 42x - 49$$
$$36x^2 - 49$$

6. Expand the following expression into standard form.

$$(9x + 4)(7x + 5)$$

$$63x^2 + 45x + 28x + 20$$
$$63x^2 + 73x + 20$$

7. Factor the expression.

$$16x^2 - 9$$

$$(4x - 3)(4x + 3)$$

8. Solve the equation.

$$9x^2 - 45x + 18 = 4x^2 - 3x + 2$$

$$5x^2 - 42x + 16 = 0$$
$$(5x - 2)(x - 8) = 0$$
$$x = \frac{2}{5} \quad x = 8$$